

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) A method of providing real-time decision support in the review of physiological data, the method comprising:
  - establishing a library of interpreted physiological data records;
  - gathering the physiological data;
  - interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation is generated, wherein the interpreting step includes:
    - measuring the physiological data;
    - analyzing a set of characteristics associated with the physiological data;
    - extracting one or more patterns from the physiological data to generate the separate interpretation; and
    - comparing the separate interpretation from the physiological data to a set of known patterns;
    - correlating the separate interpretation to one or more of the physiological data records in the library of physiological data records; and
    - displaying the separate interpretation and the correlated physiological data records on a display.
2. (Original) A method as claimed in claim 1, further comprising:
  - establishing a communications link to an expert location;
  - transmitting information concerning the interpretation to the expert location; and
  - displaying a communication from the expert location on the display.
3. (Original) A method as claimed in claim 2, wherein transmitting information concerning the interpretation includes transmitting a text message.

4. (Original) A method as claimed in claim 2, wherein transmitting information concerning the interpretation includes transmitting a voice message.
5. (Canceled)
6. (Currently Amended) A method as claimed in claim 1, further comprising determining whether the one or more extracted patterns match one or more patterns in the set of known patterns.
7. (Previously Presented) A method as claimed in claim 1, further comprising:  
creating a library of education materials; and  
displaying a predetermined portion of the education materials on the display.
8. (Original) A method as claimed in claim 1, further comprising displaying a message based on the interpretation on the display.
9. (Original) A method as claimed in claim 1, further comprising displaying the physiological data on the display.
10. (Previously Presented) A physiological data interpretation system comprising:  
a library of physiological data records;  
a physiological data acquisition device capable of acquiring physiological data and coupled to the library of physiological data records, the acquisition device having an interpretation module to generate a separate interpretation of the physiological data and a correlation module to compare the separate interpretation to the records in the library of physiological records and determine a set of correlated data records, wherein the interpretation module is configured to measure the physiological data, analyze a set of characteristics associated with the physiological data, and extract one or more patterns from the physiological data to generate the separate interpretation; and

an output device coupled to the acquisition device.

11. (Original) A system as claimed in claim 10, wherein the output device is a display.
12. (Original) A system as claimed in claim 10, further comprising an expert location coupled to the acquisition device.
13. (Original) A system as claimed in claim 12, wherein the expert location is a portal.
14. (Original) A system as claimed in claim 12, wherein the acquisition device includes an information filter.
15. (Original) A system as claimed in claim 12, wherein the acquisition device includes a communications module capable of transmitting messages to and receiving messages from the expert location.
16. (Original) A system as claimed in claim 15, wherein the messages include text information.
17. (Original) A system as claimed in claim 15, wherein the messages include voice information.
18. (Original) A system as claimed in claim 10, further comprising a server coupled to the acquisition device, and wherein the library of physiological records is located on the server.
19. (Original) A system as claimed in claim 10, further comprising a library of supplemental materials coupled to the acquisition device.

20. (Original) A system as claimed in claim 10, wherein the library of physiological data records includes ECG data.

21. (Original) A system as claimed in claim 10, wherein the acquisition device is an ECG acquisition device.

22. (Original) A system as claimed in claim 10, wherein the acquisition device includes a browser.

23. (Original) A system as claimed in claim 10, wherein the interpretation includes at least one textual message.

24. (Original) A system as claimed in claim 10, wherein the acquisition module includes a confirmation module to confirm the integrity of the physiological data.

25. (Currently Amended) A method of interpreting physiological data, the method comprising:

acquiring physiological data;

interpreting the physiological data based on a predetermined set of criteria such that a separate interpretation is generated, wherein the interpreting step includes:

measuring the physiological data;

analyzing a set of characteristics associated with the physiological data;

checking the integrity of the acquired physiological data by extracting one or more patterns from the physiological data to generate the separate interpretation; and

comparing the separate interpretation from the physiological data to a set of known patterns;

correlating the separate interpretation to one or more physiological data records in a library of physiological data records; and

displaying the separate interpretation and the correlated physiological data records on a

display.

26. (Original) A method as claimed in claim 25, further comprising:  
establishing a library of interpreted physiological data records.

27. (Original) A method as claimed in claim 25, further comprising:  
establishing a communications link to an expert location;  
transmitting information concerning the interpretation to the expert location; and  
displaying a communication from the expert location on the display.

28. (Original) A method as claimed in claim 27, wherein transmitting information  
concerning the interpretation includes transmitting a text message via instant messaging.

29. (Original) A method as claimed in claim 27, wherein transmitting information  
concerning the interpretation includes transmitting a voice message via voice-based instant  
messaging.

30. (Canceled)

31. (Original) A method as claimed in claim 25, further comprising:  
creating a library of supplemental materials; and  
displaying some of the supplemental materials on the display.